



NOAA Teacher at Sea
Karolyn Braun
Onboard NOAA Ship KA'IMIMOANA
October 6 – 28, 2006

NOAA Teacher at Sea: Karolyn Braun
NOAA Ship KA'IMIMOANA
Mission: TAO Buoy Array Maintenance
Tuesday October 24, 2006

Plan of the Day

300 CTD profile 1.5N/170W
730 CTD 2N.170W
 TAO buoy drive by
 AOML
900 Fleet Inspection Meeting
1230 CTD profile 2.5N/170W
1700 CTD 3N/170W

Well it was a long early morning. I was awoken at 2 a.m. to prepare for the 300 CTD profile. By the time I was finished and all was said and done, it was time for the next one. We sailed by the TAO buoy and all looked well so we went ahead and conducted the CTD and deployed the AOML. My last CTD for the day was the 1230 profile at 2.5N/170W. Eric from MBARI will be doing the evening one. I walked on the treadmill for an hour then made a nice salad for lunch. I honestly don't eat this much on my own. It's easy to eat when every meal is made for you. One can easily gain weight out here. I did some knot tying and rested a bit but did not want to nap, as I would not sleep tonight. We saw another pod of Pilot whales off the port bow playing in the water. Snapped a few good photos.

Lets talk about whales shall we? Whales are mammals, and there are five distinct groups of marine mammals: Pinnepeds, which include seals, sea lions, fur seals and walruses; Sea Otters; Cetaceans containing whales, dolphins and porpoises; Sirenians which comprise of dugongs and manatees; and Polar Bears. So what does it mean to be a marine mammal? Well like all mammals, they are warm-blooded, they have at least a few hairs on their bodies, and they nourish their young with milk. These mammals are protected under the Marine Mammal Protection Act that was enacted in 1979, which made it illegal to "take" any marine mammal. The term "take" includes harass, hunt, capture, collect, or kill, or attempt to do the same. "Harass" denotes the act of pursuit, torment, or annoyance that has potential to disturb marine mammals. In 1994 it was amended to strengthen the definition of harass and included feeding.

Pilot whales have been hunted for many centuries, particularly by Japanese whalers. In the mid-1980s the annual Japanese kill was about 2,300 animals. This had decreased to about 400 per year by the 1990s. Killing by harpoon is still relatively common in the Lesser Antilles, Indonesia and Sri Lanka. Hundreds or perhaps thousands are killed each year in longline and gillnets. However, due to poor record-keeping it is not known how many kills are made each year, and what the effect this has on the local population.

Female pilot whales mature at 6 years of age and a length of about 3.5 m. Males mature much later when 12 years old and 5 m in length. Mature adult males, which are generally larger than females, can weigh as much as 3 tons. At birth, calves weigh slightly over 200 lbs. They are born after a pregnancy of 16 months, and are weaned at around 20 months of age.



A pilot whale breaches the surface of the water.

Pilot whales have strong social cohesiveness; it is rare to see a single individual. Even when being driven ashore by whalers, they would stay together as a group. Groups typically contain animals of both sexes and many different ages. The males may compete for breeding privileges, forming a hierarchy that excludes smaller males. Large assemblages may also be composed of smaller, close-knit groups, which are stable over time.

Pilot whales are some of the noisiest whales in the ocean. Their group structure requires social communication, and they orient to prey objects by echolocation. Vocalizations include a wide variety of whistles and clicks.